

NEW PSEUDOSCORPION (CHEIRIDIIDAE) RECORD FROM MICHIGAN¹

Paul Cooney², Richard J. Snider³

ABSTRACT: Collections taken from straw debris at a grain elevator, located in Washtenaw County, Michigan, yielded 12 specimens of *Cheiridium museorum* (Leach). These collections represent a new record for Michigan.

A previous paper (Snider & Nelson, 1991) listed an up-to-date distribution of the pseudoscorpions known to occur in Michigan. Since that time a new record for a European species, that has been found previously in the United States, was established in Michigan. We present here collection information and comments about its known distribution.

Cheiridium museorum (Leach), 1817

Muchmore (1972) first identified *C. museorum* (Leach) from the United States. His study specimens came from collections made by Peter Weygoldt at Pepperell, Middlesex County, Massachusetts during September 1966. He commented that such a common species in Europe might be expected to be found as an introduction to the United States. However, because of its small size and elusive habits, it might have been overlooked by collectors.

Weygoldt (1969), writing from the European perspective, stated that *C. museorum* is a cosmopolitan species. He said its distribution is probably influenced by human endeavors, and listed habitats that include barns, greenhouses, and sparrow nests. Legg & Jones (1988) reported the distribution to be most of Europe, and widespread in Great Britain. They reported grain storage areas and birds nests associated with human environs as favored habitats, as well as barns and houses. They further suggested that the species was overlooked because of small size (1.3 - 1.4 mm).

Currently there are four species of *Cheiridium* known from the continental United States. *Cheiridium insperatum* Hoff & Clawson (1952) was taken from rodent nests at Moab, Utah, and Muchmore (1992) reported a record from California; *Cheiridium firmum* Hoff (1952) came from treehole "material", Lawrence Co., Illinois, and Muchmore (1992) reported a conspecific specimen from Missouri; *Cheiridium reyesi* Muchmore (1992) from a cave in Kinney County, Texas; and finally *C. museorum* from Massachusetts and Michigan. A thorough synonymy and world distribution for *C. museorum* can be found in Harvey (1991).

¹ Received May 4, 1995, Accepted May 14, 1995.

² 16351 Glenmore, Redford, MI. 48240.

³ Department of Zoology, Michigan State University, East Lansing, MI 48824.

Cheiridium museorum (Leach) from Michigan

A collection of *C. museorum* was taken from a grain and feed elevator building. The structure was old and constructed of wood, set up on pilings, leaving an open space beneath the structure. There was a loft used for straw storage, and debris over time had filtered to the floor below. Straw debris was collected from that which had accumulated, 12 to 15 inches deep. It was carefully sifted over a four day period, using a box-frame with 1/4 inch hardware cloth bottom. Below the sifter was placed a white enamel pan. From the siftings 11 specimens of *C. museorum* were removed, 5 females and 6 males. All specimens were placed in 95% ethanol with 1% glycerine for storage. Identification to genus was made using Muchmore (1990) and the species confirmed from Legg & Jones (1988).

The finding of *C. museorum* in a grain elevator building is not surprising when we consider the comments of Muchmore (1972) and Legg & Jones (1988). Here the habitat had long been associated with human activity. The building was located near a railroad track and both inter- and intrastate shipping could account for the species introduction.

Collection data: USA, Michigan, Washtenaw County, Dexter, grain elevator, straw debris on floor, February 14, and April 24, 1995, P. Cooney, collector. Six voucher specimens have been placed in the Entomology Collection at Michigan State University (MSUC), and 6 retained in the collection of Paul Cooney.

ACKNOWLEDGMENT

We would like to thank Dr. William B. Muchmore, Department of Biology, University of Rochester, Rochester, New York, for his critical reading of the manuscript and suggestions that have improved its content.

LITERATURE CITED

- Harvey, M. S. 1991. Catalogue of the Pseudoscorpionida. Manchester Unit Press, Manchester. iv+726 pp.
- Hoff, C. C. 1952. Two new species of pseudoscorpions from Illinois. Trans. Ill. Acad. Sci., 45: 188-195.
- Hoff, C. C. and D. L. Clawson. 1952. Pseudoscorpions from rodent nests. Amer. Mus. Novit., 1585: 1-38.
- Legg, G. and R. E. Jones. 1988. Pseudoscorpions (Arthropoda: Arachnida). Keys and notes for the identification of the species. Linn. Soc. Lond. and The Estuarine and Brackish-water Sciences Association. E. J. Brill, Leiden. 159 pp.
- Muchmore, W. B. 1972. European pseudoscorpions from New England. Jour. N. Y. Entomol. Soc., 80 (2): 109-110.
- Muchmore, W. B. 1990. Pseudoscorpionida., 503-527. In: Dindal, D. L. Soil Biology Guide. John Wiley & Sons, New York, 1349 pp.
- Muchmore, W. B. 1992. Cavernicolous pseudoscorpions from Texas and New Mexico (Arachnida: Pseudoscorpionida). Texas Mem. Mus., Speleol. Monogr., 3: 127-153.
- Snider, R. J. and S. O. Nelson. 1991. Michigan Pseudoscorpionida, a checklist. Mich. Acad., 24: 259-263.
- Weygoldt, P. 1969. The Biology of Pseudoscorpions. Harvard Univ. Press, Cambridge, Mass., 145 pp.